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Agriculture in THE UNITED STATES and THE SOVIET UNION



Foreign Agricultural Economic Report No. 92

ECONOMIC RESEARCH SERVICE • U.S. DEPARTMENT OF AGRICULTURE

ABSTRACT

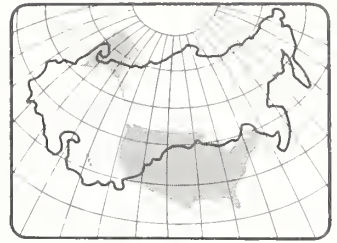
Farm efficiency, measured in terms of output per unit of input, is substantially higher in the United States than in the U.S.S.R. for land, livestock, and labor. The United States has made more capital inputs and has achieved greater yields. Soviet agricultural output is only about 80 percent of the U.S. production. The United States produces much more meat, eggs, fruit, corn, and soybeans than does the U.S.S.R. On the other hand, Soviet production of milk, wheat, rye, barley, potatoes, and sunflowerseeds greatly exceeds that of the United States.

Key Words: Agriculture, Production, Trade, United States, Soviet Union, Crops, Livestock, and Inputs.

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SUMMARY



Although in many areas of agriculture, the wide gap between the U.S.S.R. and the United States has narrowed, we are still far ahead in farm efficiency and crop yields.

Farm efficiency, measured in terms of output per unit of input, is substantially higher in the United States for land, livestock, and labor. Also, the United States has invested more capital than the Soviets and has achieved greater output.

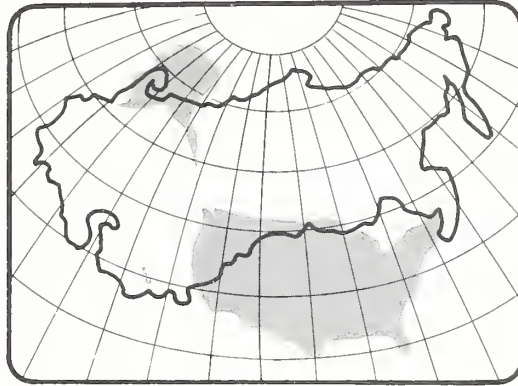
In 1971, despite greater inputs of land and labor, the value of Soviet agricultural output was about 80 percent of U.S. production. Soviet cultivated land area--555 million acres--is 43 to 44 percent larger than U.S. cultivated area. Also, roughly one-third of the Soviet labor force (which is about 50 percent larger than the U.S. labor force) is engaged in agriculture, compared with a U.S. average of only 4 percent.

The Soviet Union lags far behind in agricultural inputs of fertilizer and equipment. The Soviets use about 40 percent as much nitrogen and potash per acre sown to crops and about 30 percent as much phosphate. Also, they have one tractor for every 250 acres of crops, while we have one for every 66 acres. For grain combines, there is a similar situation.

The United States produces much more meat, eggs, fruit, corn, and soybeans than does the U.S.S.R. On the other hand, Soviet production of milk, wheat, rye, barley, potatoes, and sunflowerseeds greatly exceeds that of the United States.

The relative importance of agricultural products in foreign trade of both countries is roughly the same--almost one-sixth. However, the United States traditionally is a net exporter of agricultural products, and the Soviet Union is a net importer.

Agriculture in THE UNITED STATES and THE SOVIET UNION



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INTRODUCTION

This study compares the agriculture of the United States and the Soviet Union by using recent statistical information on agricultural resources, structure, resource allocation, and output. It also updates an earlier publication of a similar title (9). 1/ The tables in this report provide a comparison of acreage, yields, and production of grain, output of other agricultural crops, livestock numbers, livestock product output, selected agricultural inputs, and agricultural trade of the two countries. Where pertinent, 5-year averages have been used to minimize the effect of weather on the agricultural comparisons. Comparisons of soils, crop varieties, livestock breeds, agricultural science and technology, and institutional and political factors are not included in this study, but their effects are reflected, although not directly, in the results presented in the comparative tables.

1/ Underscored numbers in parentheses refer to items in References at the end of this report.

The comparisons made in this study provide, at best, only general measures of agricultural performance of the United States relative to that in the Soviet Union. Such comparisons between countries are subject to inaccuracies attributable to a number of factors, some of which are: (1) differences in definition of terms; (2) insufficient data; and (3) inability to make relevant quality comparisons.

A difference in definition of terms can be found in grain yield and production data. Soviet statistics report grain yields and production in terms of "bunker weight"--the weight of the grain as it comes from the combines. Thus, Soviet yield and production data do not represent grain of a standard moisture and foreign matter content, but rather represent grain containing varying amounts of moisture and foreign matter, depending mainly upon weather conditions during harvesting. U.S. specialists on Soviet agriculture generally feel that harvesting conditions in the U.S.S.R. result in excess moisture and foreign matter in the grain. For estimates of usable grain, most of these specialists feel that official Soviet grain yield and production data should be reduced. Some use a standard reduction rate within a range of 15 to 20 percent. However, in this report, the official bunker weight for Soviet grain yield and production is used since actual variations in moisture and foreign matter are unknown, and it is questionable that a standard deduction provides significantly better results than no deduction, particularly in estimating year-to-year changes in the actual supply of usable grain.

AGRICULTURAL RESOURCES

Land and Climate

The Soviet Union is not as richly endowed with agricultural resources as the United States. The total land area of the U.S.S.R. is 5.5 billion acres, about 2.5 times larger than the 2.25 billion covered by the United States. ^{2/} However, only about a fourth of the land in the Soviet Union is suitable for agricultural use, compared with roughly half in the United States. Thus, the 1.5 billion acres of agricultural land in the U.S.S.R. exceed by only a fourth the 1.2 billion acres of such land in the United States. Nevertheless, the Soviet cultivated land area--555 million acres--is 43 to 44 percent larger than the U.S. cultivated area.

The United States has a more favorable geographical location and better weather conditions for agriculture than does the U.S.S.R. Former U.S.S.R. Minister of Agriculture Vladimir V. Matskevich, in an interview published in the January 1973 issue of the Soviet journal Ogonek, described some of the differences (18):

U.S. territory lies south of the 49th parallel, while only one-third of the agricultural land in the Soviet Union lies within this zone. In the U.S.S.R., only 1.1 percent of the arable land lies in areas with an annual precipitation of 700 millimeters [28 inches] while in the United States it is 60 percent. ... Here 40 percent of the arable land lies in areas with an annual precipitation of 400 millimeters [16

^{2/} Including Alaska and Hawaii.

inches], while in the United States it is 11 percent. ... More than two-thirds of the area sown to grain crops in the U.S.S.R. is located in areas with insufficient precipitation. ... Severe and very severe droughts occur once in 3 years. ... Only about 1 year out of every 3 or 4 can be considered more or less favorable. ... The temperature ranges are also considerably different. In the U.S.S.R. 60 percent of the arable land lies within areas having an average temperature up to 50C [41OF], while this is true of only slightly more than 10 percent in the United States.

Therefore, in addition to greater drought susceptibility, the U.S.S.R. has a considerably shorter growing season and frost-free period than most areas in the United States.

Labor Forces

The Soviet Union has a population of about 250 million, about a fifth more than the 210 million people in the United States. About 40 percent of the Soviet population resides in rural areas, compared with about 25 percent in the United States.

The civilian labor force of the U.S.S.R.--about 135 million (6)--exceeds that of the United States by about 50 percent. Thus, the Soviet Union has over half of its people in the labor force, compared with over 40 percent for the United States. Also, the proportion of women in the labor force is higher than the 38 percent in the United States. About half of all workers and employees in the U.S.S.R. are women.

These differences in the labor forces in the two countries are probably due in large measure to agricultural employment. Roughly a third of the Soviet labor force is engaged in agriculture, compared with only 4 percent in the United States. Also, women account for only about 2 percent of those engaged in agriculture in the United States, compared with about 45 percent in the U.S.S.R. However, the number of nonagricultural workers engaged in activities in support of agricultural workers is much greater in the United States than in the Soviet Union.

AGRICULTURAL SYSTEMS

The agricultural system of the U.S.S.R. is vastly different from that of the United States. Almost all land in the U.S.S.R. is socialized and operated under a central state plan. At the beginning of 1973, there were 31,600 collective farms averaging 6,300 hectares (about 15,500 acres) of agricultural land and 15,744 state farms averaging 19,900 hectares (49,200 acres) of agricultural land (14). By contrast, in the United States there are about 2.8 million farms (mainly operated by farm owners and their families) which cover, on the average, somewhat less than 400 acres (160 hectares) of land.

The collective farms occupy about half of the total sown acreage in the U.S.S.R. Most of the remaining acreage is in state farms. The private sector, only about 3 percent of the sown acreage, consists mainly of small plots, frequently less than half an acre in size. Most of these plots are tilled by collective and state farm members in their spare time. Although these "private"

plots constitute a very small portion of the total agricultural land, they account for a large part of the output of selected agricultural commodities. In 1971, for example, 37 percent of the vegetables and 63 percent of the potatoes were produced in the private sector. For livestock products, this proportion was also very high: meat, 35 percent; milk, 35 percent; eggs, 50 percent; and wool, 20 percent (13). However, for livestock products, the private sector depends mainly on the public sector for feed input.

The functions of management on Soviet and American farms are difficult to compare because of differences in size, organization, and context of the overall economic system. Soviet collective farm chairmen and state farm directors probably bear the closest resemblance to managers of American corporate-type farms. However, Soviet farm managers are not fully responsible for making economic decisions directly affecting the output and profit of the enterprises. Often, they must respond to directives rather than make independent decisions. Recent increased Soviet interest in cost accounting and profitable farm operations suggests some change toward more managerial autonomy in the actual production process. Much of the pricing and marketing of farm products, however, remains a function of the Soviet Government rather than a function of consumer demand. The U.S. Government helps shape the broad activities of production, marketing, pricing, and trade through extension services, support of farm prices and income, and promotion of foreign trade. But, with minor exceptions, U.S. farmers make onfarm decisions.

The present Soviet regime is increasing the level of inputs and improving incentives for the rural labor force. These measures include improved credit for farmers, higher prices for farm products, increased supplies of fertilizers, more pesticides and machinery, additional building complexes, and expanded irrigation and drainage projects.

Although the wide gap between many aspects of U.S. and U.S.S.R. agricultural efficiency, production, and performance has recently been narrowed, several sizable differences still exist, as indicated in the following tables. Farm efficiency, measured in terms of output per unit of input, is substantially higher in the United States than in the U.S.S.R. for land, livestock, and labor. Yields of most crops are lower in the U.S.S.R.

The United States, as indicated above, uses much less labor and land than does the U.S.S.R. but has invested more capital to achieve greater output. As a consequence of differences in natural resources, technology, and organization of production, the productivity of U.S. farmworkers is much higher. In a recent study (11), former Secretary of Commerce Peter G. Peterson found that in the U.S.S.R. one farmworker feeds only seven people, while in the United States, a farmworker feeds 46. Also, according to the same study, the dollar value of Soviet agricultural output in 1971 was only about 80 percent of the U.S. dollar value, despite greater inputs of land and labor.

COMMODITIES

GrainsArea

Grain area in the U.S.S.R. is almost twice as large as in the United States (table 1). An important factor in this comparison is that the United States until recently has been curtailing its grain area in connection with a policy of grain supply management, while the Soviet Union has been following a grain area policy designed to maximize grain production.

Table 1--Grain area, United States and the Soviet Union, average 1967-71

Grain	U.S.	U.S.S.R.	U.S.	U.S.S.R.	U.S.S.R. area as a percent of U.S. area
	<u>Mil. ha.</u>		<u>Mil. acres</u>		<u>Percent</u>
Wheat:					
Winter.....	15.2	18.5	37.6	45.7	122
Spring.....	5.3	47.5	13.0	117.4	896
Total.....	20.5	66.0	50.6	163.1	322
Rye.....	.5	10.7	1.3	26.4	2,140
Barley:					
Winter.....	<u>1/1.0</u>	1.3	<u>1/2.4</u>	3.2	130
Spring.....	2.9	19.5	7.2	48.2	672
Total.....	3.9	20.8	9.6	51.4	533
Oats.....	6.9	9.2	17.1	22.7	133
Corn.....	23.6	3.6	58.4	8.9	15
Rice.....	.8	.3	2.0	.7	38
Others.....	<u>2/5.9</u>	<u>3/10.1</u>	<u>2/14.6</u>	<u>3/25.0</u>	171
Total grain....	62.1	120.7	153.6	298.2	194

1/ Estimated at one-fourth of total barley acreage.

2/ Grain sorghum.

3/ Millet, buckwheat, and pulses (which the Soviets include with grain).

Sources: (13, 14, 15).

There is also a sharp contrast in the types of grain grown in the United States and the U.S.S.R. (fig. 1). The food grains wheat, rye, buckwheat, and rice account for two-thirds of the total Soviet grain area. Wheat alone occupies 55 percent of this area. In the United States, corn accounts for 38 percent of the grain acreage. Food grains account for only about one-third of U.S. grain acreage.

GRAIN AREA

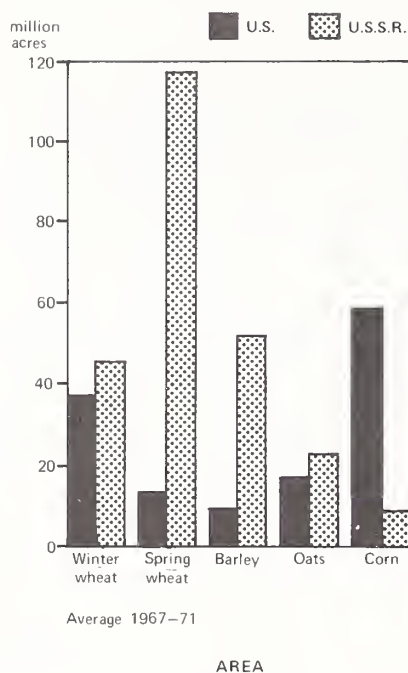


Figure 1

The more northern location of the major agricultural regions of the Soviet Union is reflected by the types of wheat grown. Winter wheat accounts for only about a fourth of the total wheat area in the U.S.S.R. but for three-fourths of the total in the United States. Nevertheless, the Soviet winter wheat area is somewhat larger than the U.S. area. However, the winter wheat areas relatively far north in the Soviet Union are often hit heavily by winterkill.

Yields

Average Soviet grain yields, even in bunker-weight terms, are less than half those in the United States (table 2), reflecting differences in types of grain grown, levels of technology, geographic location, and economic systems. The relative importance of U.S. corn versus Soviet wheat in the overall yield comparison is reflected by the fact that for most of the individual grains, U.S.S.R. yields are between two-thirds

Table 2--Grain yields, United States and the Soviet Union, average 1967-71

Grain	U.S.	U.S.S.R.	U.S.	U.S.S.R.	U.S.S.R. yields as a percent of U.S. yields
	<u>1/</u>	<u>1/2/</u>		<u>2/</u>	
	<u>Qu./ha.</u>		<u>Bu./acre</u>		<u>Percent</u>
Winter wheat.....	21.0	20.2	31.2	30.0	96
Spring wheat.....	17.5	11.1	26.0	16.5	63
Winter rye.....	18.0	12.0	28.7	19.1	67
Spring barley.....	23.3	15.3	43.3	28.4	66
Oats.....	18.8	14.1	52.4	39.3	75
Corn.....	50.3	26.7	80.1	42.5	53
Rice.....	51.2	40.0	3/112.9	3/88.2	78
Total grain.....	33.3	14.0	--	--	42

-- = not applicable.

1/ Calculated using area data in table 1 and production data in table 3.

2/ In terms of bunker weight--the grain's weight as it comes from the combines.

3/ In terms of hundredweights.

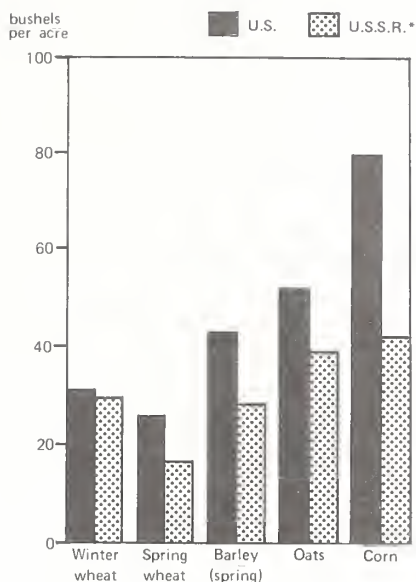
and three-fourths of U.S. yields. However, Soviet winter wheat yields are close to those in the United States, while Soviet corn yields are only about half as high (fig. 2).

Grain yield variability during 1967-71 was somewhat greater in the U.S.S.R. The difference between the low and high grain yields in the 5 years was 20 percent in the United States and 30 percent in the Soviet Union. For individual grains, yield variability was greater in the United States for winter wheat and in the Soviet Union for spring wheat. The corn blight in 1970 resulted in a wider variation in U.S. corn yields than in Soviet yields.

Production

U.S. grain production is about a fifth larger than Soviet bunker-weight grain output (table 3), although Soviet grain area is almost twice as large as U.S. grain area. The major reason for

GRAIN YIELDS



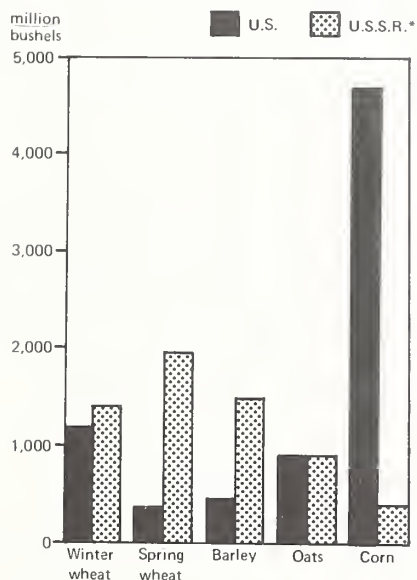
Average 1967-71

*In terms of bunker weight

YIELDS

Figure 2

GRAIN PRODUCTION



Average 1967-71

*In terms of bunker weight

PRODUCTION

Figure 3

this seemingly contradictory situation is that high-yielding corn accounts for over half of total U.S. grain production, while relatively low-yielding wheat (primarily spring wheat) accounts for over half of the Soviet grain crop. The U.S.S.R. produces over twice as much wheat, almost 15 times as much rye, and over three times as much barley (fig. 3). Oat production is about equal in the two countries. On the other hand, U.S. corn output is over 12 times as much as in the Soviet Union, and rice output is three times as great.

The dominance of feed grains in U.S. grain production is even more pronounced than indicated by the acreage data. Feed grains account for over three-fourths of U.S. grain output, compared with a little over a third of the Soviet crop. However, in both countries, sizable quantities of food grains, particularly the lower quality grains, are used as livestock feed.

Table 3--Grain production, United States and the Soviet Union, average 1967-71

Grain	U.S.	U.S.S.R.	U.S.	U.S.S.R.	U.S.S.R. production as a percent of U.S. production
		<u>1/</u>		<u>1/</u>	
	<u>Mil. MT</u>		<u>Mil. bu.</u>		<u>Percent</u>
Wheat:					
Winter.....	31.9	37.4	1,172	1,374	117
Spring.....	9.3	52.5	342	1,929	565
Total.....	41.2	89.9	1,514	3,303	218
Rye.....	0.9	12.8	35	504	1,422
Barley.....	9.1	31.8	418	1,461	349
Oats.....	13.0	13.0	896	896	100
Corn.....	118.8	9.6	4,677	378	8
Rice.....	4.1	1.2	<u>2/90</u>	<u>2/26</u>	29
Others.....	<u>3/19.5</u>	<u>4/11.2</u>	--	--	57
Total grain....	206.6	169.5	--	--	82

-- = not applicable.

1/ In terms of bunker weight--the grain's weight as it comes from the combines. 2/ In terms of hundredweights. 3/ Grain sorghum. 4/ Millet, buckwheat, and pulses (which the Soviets include with grain).

Sources: (13, 15, 16).

Variability in total Soviet grain production during 1967-71 was about the same as that in the United States. However, an important factor in the amount of variation in the U.S. grain crop was the 1970 corn blight and the reaction to it. Variability for grains other than corn was generally somewhat greater in the U.S.S.R.

Nongrain Crops

Production of nongrain crops in the United States and the Soviet Union varies greatly (table 4). The output of cotton (all irrigated in the U.S.S.R.) and vegetables is about the same in the two countries, but a wider variety of vegetables is produced in the United States. On the other hand, the U.S.S.R. produces almost seven times as many potatoes but only about half as much fruit, reflecting differences in food consumption patterns in the two countries.

Soviet production of soybeans, the major U.S. oilseed, is negligible. Conversely, U.S. production of sunflowerseeds, the principal Soviet oilseed, is also negligible. The Soviets produce 60 percent more sugar (all from beets) than the United States does but only a fourth as much tobacco and 88 percent as much hay.

Table 4--Production of selected nongrain crops, United States and the Soviet Union, average 1967-71

Crop	U.S.	U.S.S.R.	U.S.S.R. production as a percent of U.S. production
	Million metric tons		Percent
Fruit <u>1/</u> <u>2/</u>	21.7	9.7	45
Vegetables.....	21.2	22.8	108
Potatoes.....	14.1	95.8	679
Sugar (raw value).....	5.7	9.1	160
Cotton.....	<u>3/</u> 2.1	<u>3/</u> 2.1	100
Tobacco.....	.8	.2	25
Soybeans.....	29.9	.5	2
Sunflowerseeds.....	--	6.3	<u>4/</u>
Hay.....	115.8	102.3	88

-- = negligible.

1/ 1966-70 average. 2/ Including grapes--U.S., 3.2 million tons and U.S.S.R., 3.9 million tons. 3/ Equal to 9.6 million 480-pound (net weight) bales.

4/ Unknown.

Sources: (12, 13, 15, 16).

Livestock

Numbers

U.S. and Soviet livestock herds are both large. U.S. cattle numbers are more than 10 percent larger than Soviet cattle numbers (table 5). On the other hand, Soviet hog numbers exceed those in the United States by a similar amount. Also, the Soviets have over seven times as many sheep and lambs.

Table 5--Livestock numbers, United States and the Soviet Union, Jan. 1, 1972

Livestock	U.S.	U.S.S.R.	U.S.S.R. numbers as a percent of U.S. numbers
	Million head		Percent
Cattle.....	117.9	102.4	87
Cows.....	51.0	41.2	81
Hogs.....	<u>1/</u> 63.0	71.4	113
Sheep and lambs.....	18.5	139.9	756

1/ December 1, 1971.

Sources: (13, 16).

LIVESTOCK NUMBERS

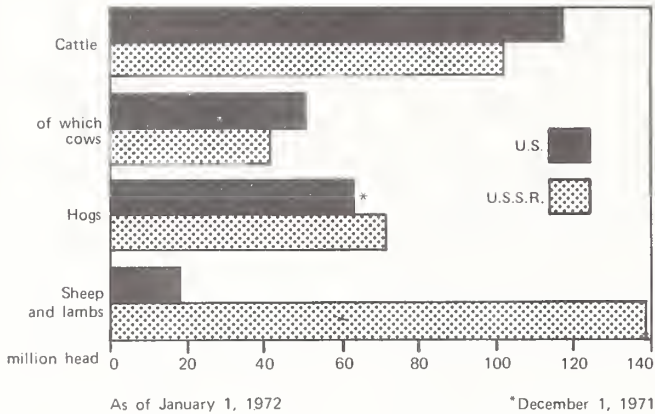


Figure 4

creasing relative to those in the United States. Soviet sheep and lamb flocks increased slightly between 1962 and 1972, while U.S. sheep and lamb numbers decreased by more than a third. During this period, the United States did experience a somewhat greater increase in hog numbers than did the U.S.S.R.

Meat, Dairy, and Poultry Products

Soviet production of meat and eggs is only a little over half as much as output in the United States (table 6). The meat production data relative to livestock numbers demonstrate the higher productivity of U.S. animals. Soviet beef and veal production per head of cattle as well as pork per hog are only about two-thirds of U.S. output per head. Also with seven times as many sheep and lambs, Soviet production of mutton and lamb (and also wool) is only three to four times as much as in the United States. U.S. output of poultry meat, four times the U.S.S.R. level, reflects the stages of development of commercial poultry raising in the two countries (fig. 5).

Soviet milk production is 1.5 times U.S. milk output, and the Soviets produce twice as much butter. However, milk yield per cow milked in the United States is somewhat more than twice as much as in the U.S.S.R. This yield discrepancy is mainly due to the fact that dual purpose breeds comprise most of the cows milked in the Soviet Union, while in the United States, most cows milked are dairy breeds.

OUTPUT OF SELECTED LIVESTOCK PRODUCTS

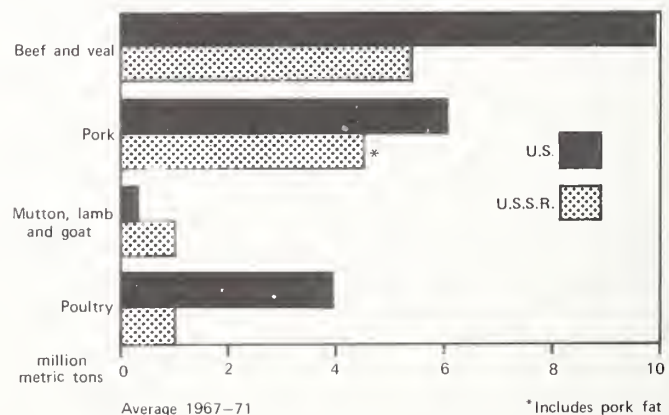


Figure 5

Table 6--Production of selected livestock products, United States and Soviet Union, average 1967-71

Commodity	U.S.	U.S.S.R.	U.S.S.R. production as a percent of U.S. production
	Million metric tons		Percent
Beef and veal.....	9.9	5.4	55
Pork.....	6.1	1/4.5	74
Mutton, lamb, and goat.....	.3	1.0	333
Poultry.....	3.9	1.0	26
Total meat.....	20.2	11.9	59
Cows' milk.....	53.3	2/82.0	154
Butter.....	.5	1.0	200
Wool (greasy basis).....	.1	.4	400
	Billion eggs		
Eggs.....	70.1	38.5	55

1/ Includes pork fat.

2/ Includes 1 to 2 percent of milk other than cows' milk.

Sources: (13, 15, 16).

Per Capita Output

Both the United States and the U.S.S.R. generally have adequate food supplies in terms of calories per person, but the composition of the respective diets differs greatly. The differences are reflected in table 7. Per capita output of fruit, meat, and corn (for livestock feed) are much higher in the United States. On the other hand, per capita output of wheat and potatoes, items generally associated with a relatively low-quality diet, are much higher in the Soviet Union. However, Soviet milk output per capita is higher.

AGRICULTURAL INPUTS

Mineral Fertilizers

The Soviet Union lags far behind the United States in use of mineral fertilizers. The Soviets use about two-thirds as much nitrogen and potash as the United States does and only about half as much phosphate (table 8). The comparison is even less favorable when fertilizer use per acre sown to crops is calculated since the Soviet sown area is about three-fourths larger than the U.S. crop area. The Soviets use only about 40 percent as much nitrogen and potash per acre sown to crops and only about 30 percent as much phosphate.

Table 7--Per capita output of selected agricultural commodities, United States and the Soviet Union, 1967-71 1/

Commodity	U.S. <u>2/</u>	U.S.S.R. <u>2/</u>	U.S.	U.S.S.R.	U.S.S.R. output as a percent of U.S. output
	<u>Kilograms</u>		<u>Pounds</u>		<u>Percent</u>
Grain.....	1,036	705	2,284	1,554	68
Wheat.....	207	374	456	825	181
Corn.....	596	40	1,314	88	7
Fruit.....	109	40	240	88	37
Vegetables.....	106	95	234	209	90
Potatoes.....	71	398	157	877	561
Sugar.....	29	35	64	77	121
Meat.....	101	50	223	110	50
Milk.....	267	341	589	752	128

1/ Average July 1, 1967-71 populations were as follows: U.S., 199.4 million and U.S.S.R., 240.5 million. 2/ Calculated from data in tables 2, 4, and 6.

Table 8--Utilization of mineral fertilizers, United States and the Soviet Union, 1/ 1970-71

Fertilizer	U.S. <u>2/</u>	U.S.S.R. <u>3/</u>	U.S.S.R. utilization as a percent of U.S. utilization
	<u>Million metric tons</u>		<u>Percent</u>
Nitrogen (N).....	7.19	4.60	64
Phosphate (P ₂ O ₅).....	4.34	2.21	51
Potash (K ₂ O) ^{2/5}	3.79	2.57	68

1/ In terms of available plant nutrients. 2/ July 1, 1970-June 30, 1971.
3/ Jan. 1-Dec. 31, 1970.

Sources: (1, 4).

Use of mineral fertilizers in both the United States and the Soviet Union has been increasing rapidly. During the past decade, use of mineral fertilizers in the United States has more than doubled, while in the Soviet Union such use has increased fourfold, but from a much smaller base.

Farm Equipment

Agriculture in the United States is much more mechanized than in the Soviet Union. The U.S.S.R. has less than half as many tractors and trucks on farms but about 90 percent as many grain combines as the United States (table 9 & fig. 6). The comparison is even less favorable if based on area per machine. In the U.S.S.R., there is one tractor for each 250 acres of crops, while in the United States, there is one for every 66 acres. For grain combines, there is a similar situation--about 450 acres of small grains (excluding corn) per combine. In the United States, the area is about 130 acres per combine.

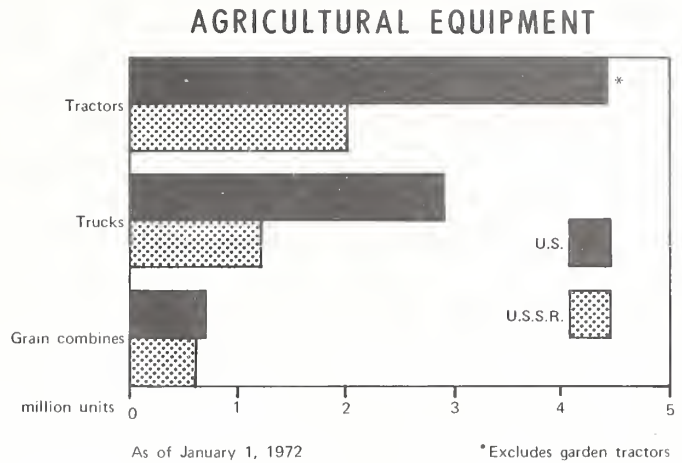


Figure 6

Table 9--Agricultural equipment on farms, United States and the Soviet Union, Jan. 1, 1972

Category	U.S.	U.S.S.R.	U.S.S.R. equipment as a percent of U.S. equipment
	<u>Million units</u>		<u>Percent</u>
Tractors.....	1/4.47	2.05	46
Trucks.....	2.94	1.24	42
Grain combines.....	.72	.64	89

1/ Excludes garden tractors.

Sources: (13, 16).

FOREIGN TRADE

The relative importance of agricultural products in foreign trade of both countries is roughly the same--almost one-sixth. However, the United States traditionally is a net exporter of agricultural products, and the Soviet Union is a net importer. Also, in volume as well as value terms, the agricultural trade of the United States is far more important than that of the U.S.S.R. The United States is the world's largest exporter and second largest importer of agricultural products.

Grain

The U.S.S.R. until recently has generally been a net grain exporter. During 1967-71, wheat or wheat flour accounted for 86 percent of Soviet grain exports and for 69 percent of imports (table 10). A significant portion of Soviet grain imports represents wheat purchased from Western countries such as Canada for shipment on Soviet account to Cuba, East Germany, Czechoslovakia, or other countries with which the Soviets have bilateral trade agreements. Also, most Soviet exports represent grain shipped in fulfillment of bilateral trade agreements, mainly with East European countries.

Table 10--Grain trade, United States and the Soviet Union, average 1967-71

Grain	Exports		Imports	
	U.S.	U.S.S.R.	U.S.	U.S.S.R.
	<u>Million metric tons</u>			
Wheat.....	17.4	6.4	--	1.8
Rye.....	0.1	0.2	--	--
Barley.....	0.9	0.6	0.2	--
Oats.....	0.1	--	--	--
Corn.....	13.8	0.2	--	0.5
Rice, milled.....	1.7	--	--	0.3
Total.....	34.0	7.4	0.2	2.6

-- = negligible.

Sources: (5, 10).

The United States, on the other hand, is almost exclusively a grain exporter, with exports during 1967-71 about 4.5 times as large as Soviet grain exports. Wheat accounted for roughly half of U.S. grain exports, followed by corn at about 40 percent.

Soviet grain trade fluctuates more widely than U.S. grain trade. During 1967-71, the range from low to high in U.S. grain exports was 24 percent, from 29.6 million tons in 1969 to 36.8 million in 1970. For the same period, Soviet grain exports ranged from 6.1 million tons in 1968 to 9.5 million in 1971, a range of more than 50 percent. The variations in grain exports in both countries were mainly due to wheat. Soviet grain imports, also influenced primarily by wheat fluctuations, ranged from 1.2 million tons in 1969 to 3.8 million in 1971. (For perspective, Soviet purchases of grain in fiscal year 1973 totaled 27.6 million tons, including 18.5 million from the United States.)

Other Agricultural Products

U.S. and Soviet trade in certain nongrain agricultural products for 1966-70 displayed some unusual patterns, considering levels of domestic production in the two countries. The United States was a large net importer of meat, and the Soviet Union was a net exporter, although U.S. meat production was twice as large as Soviet production. U.S. and Soviet net wool imports were about equal although Soviet wool production was seven times as large (table 11). The U.S.S.R. exported only about a tenth as much oilseed cake as the United States did, but nevertheless was a net exporter even though additional protein supplements could have improved the quality of Soviet livestock feed.

Table 11--Trade in selected nongrain agricultural commodities, United States and the Soviet Union, average 1966-70

Commodity	Exports		Imports	
	U.S.	U.S.S.R.	U.S.	U.S.S.R.
	<u>1,000 metric tons</u>			
Cotton, lint.....	763	513	20	176
Wool, washed.....	--	23	56	68
Meat.....	202	106	502	74
Tobacco.....	255	3	109	63
Pulses.....	287	208	8	2
Sugar, raw.....	2	1,192	4,346	2,084
Butter.....	6	68	--	2
Oilseed cake.....	2,650	306	49	76

-- = negligible.

Source: (8).

The United States was a much larger net exporter of cotton, although production in the two countries was about equal. Both countries were large sugar importers, but the U.S.S.R. was also an important sugar exporter.

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